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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,665	12/17/2001	Michelle R. Arkin	36632-0007	2694

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EXAMINER

RAO, DEEPAK R

ART UNIT	PAPER NUMBER
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1624

DATE MAILED: 05/29/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
10/024,665

Applicant(s)
Arkin et al.

Examiner
Deepak Rao

Art Unit
1624



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Mar 12, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 ☒ are pending in the application.
- 4a) Of the above, claim(s) 4 is/~~are~~ withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, and 8-12 ☒ are rejected.
- 7) ☒ Claim(s) 7 and 13-20 ☒ are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 6) ☐ Other:

Art Unit: 1624

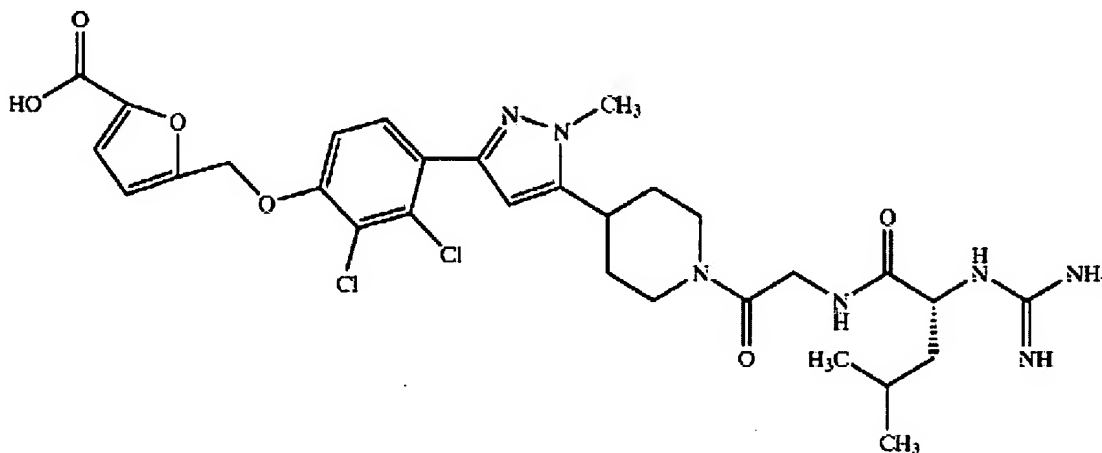
DETAILED ACTION

Claims 1-20 are pending in this application.

Election/Restriction

Applicant's election **without** traverse of Group I, claims 1-20, drawn to compounds of formula I in Paper No. 9 is acknowledged. Claims 1 and 6-20 (in part) drawn to compounds of formula I are withdrawn from consideration pursuant to 37 CFR 1.142(b), as being drawn to non-elected inventions.

Applicant's election of the compound 124 in Example 47 (depicted below for convenience) is also acknowledged.



The species represents a compound of formula I wherein:

m is 1, n is 1, o is 1;

A is CH₃;

Art Unit: 1624

B is $-C(=O)-CH_2-$;

J is $-NH-C(=O)-CH(C_{4alkyl})-$;

R^6 , R^7 , R^7 and R^8 are H;

R^1 is methyl;

X is CH;

R^2 and R^3 are Cl;

R^5 is H; and

R^4 is $-L-Ar(Q)(R^5)$ wherein L is $-O-CH_2-$, Ar is furyl, R^5 is H and Q is COOH.

The guidelines in MPEP § 803.02 provide that upon examination if prior art is found for the elected species, the examination will be limited to the elected species.

Content of MPEP § 803.02 is provided here for convenience:

As an example, in the case of an application with a Markush-type claim drawn to the compound C-R, wherein R is a radical selected from the group consisting of A, B, C, D and E, the examiner may require a provisional election of a single species, CA, CB, CC, CD or CE. The Markush-type claim would then be examined fully with respect to the elected species and any species considered to be clearly unpatentable over the elected species. If on examination the elected species is found to be anticipated or rendered obvious by prior art, the Markush-type claim and claims to the elected species shall be rejected, and claims to the non-elected species would be held withdrawn from further consideration. As in the prevailing practice, **a second action on the merits on the elected claims would be final.**

On the other hand, should no prior art be found that anticipates or renders obvious the elected species, the search of the Markush-type claim will be extended. If prior art is then found that anticipates or renders obvious the Markush-type claim with respect to a nonelected species, the Markush-type claim shall be rejected and claims to the nonelected species held withdrawn from further consideration. The prior art search, however, will not be extended unnecessarily to cover all nonelected species. Should applicant, in response to this rejection of the Markush-type claim, overcome the rejection, as by amending the Markush-type claim to exclude the species anticipated or rendered obvious by the prior art, the amended Markush-type claim will be reexamined. The prior art search will be extended to the extent necessary to determine patentability of the Markush-type claim. In the event prior art is found during the reexamination that

Art Unit: 1624

anticipates or renders obvious the amended Markush-type claim, the claim will be rejected and the action made final. Amendments submitted after the final rejection further restricting the scope of the claim may be denied entry.

The elected species was not found in the prior art and as per the guidelines above, the search was expanded to compounds of formula I, other values of B, J, M, R²-R⁵, while retaining the values of m, n, o, A and X as indicated for the elected species and art was found. As per the guidelines above, claim 4 drawn to compounds of formula (IV) is withdrawn from consideration by the examiner, pursuant to 37 CFR 1.142(b), as being drawn to non-elected inventions.

Claim Objections

Claims 13-20 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Instant claim 13 does not refer to 'claims 1 through 4' in the alternative. Accordingly, the claims 13-20 have not been further treated on the merits.

Claim Rejections - 35 U.S.C. § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following reasons apply:

Art Unit: 1624

1. Claim 10 recites the limitation "B-J is -C(=O)-NH-(C₂-C₆alkyl)- or -S(=O)₂-NH-(C₂-C₆alkyl)- " in lines 1-3. There is insufficient antecedent basis for this limitation in claim 1 on which claim 10 is dependent.
2. In claim 11, M is defined to be selected from some substituted heterocyclic groups, wherein there is insufficient antecedent basis for some of the substituent groups in claim 1 on which claim 11 is dependent. Particularly, the substituents “=NH” (see e.g., line 2, the first heterocyclic group) and “-CH=NH” (see e.g., line 2, the last heterocyclic group) do not find support in claim 1. According to claim 1, M is a heterocyclic group having a substituent selected from R¹, R² and R⁹, however, none of these groups equate to the above substituents.

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1624

1. Claims 1-3, 5-6, 9 and 12 are rejected under 35 U.S.C. 102(a) as being anticipated by Poulain et al. (J. Med. Chem. 2001). The instantly claimed compounds read on the reference compounds, see compound no. 9 in page 3380.
2. Claims 1-3, 5-6 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Collins et al., Chem. Abstract 129:216682. The instantly claimed compounds read on reference disclosed compounds, see the compound having RN 184374-61-6 in the enclosed copy of CAPLUS computer search report.
3. Claims 1-3, 5-6, 8 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Xu et al., Chem. Abstract 129:81705. The instantly claimed compounds read on reference disclosed compounds, see the compound having RN 209163-91-7 in the enclosed copy of the CAPLUS computer search report.
4. Claims 1-3, 5-6 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Rowley et al. (J. Med. Chem. 1997). The instantly claimed compounds read on reference disclosed compounds, see the compounds 10-11 and 16-19 in pages 2377-78.
5. Claims 1-3, 5-6 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Payne et al., WO 96/32938. The instantly claimed compounds read on the reference disclosed

Art Unit: 1624

compounds, see the subgeneric formulae in pages 12-13 and the exemplified compounds, particularly compounds of Examples 3-11.

Allowable Subject Matter

Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10-11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Receipt is acknowledged of the Information Disclosure Statement filed on March 28, 2002 and a copy is enclosed herewith.

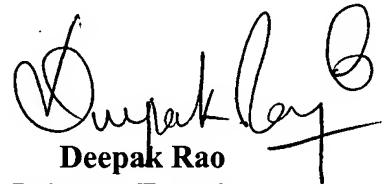
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deepak Rao whose telephone number is (703) 305-1879. The examiner can normally be reached on Tuesday-Friday from 6:30am to 5:00pm.

Art Unit: 1624

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Mukund Shah, can be reached on (703) 308-4716. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.



Deepak Rao
Primary Examiner
Art Unit 1624

May 28, 2003